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Lecture By=Shubham Joshi

Notes By=Upadhyay Hemanshu

IN PREVIOUS LECTURE(QUICK RECAP)	IN TODAY'S LECTURE(OVERVIEW)
Got Introduction of Github, Master Branch & Dev Branch and Fork	Parts/Architecture Of Websites
1.Gitpush 2.Gitpull 3.Gitmerge, 4.Gitclone 5.Gitbrandev 6.Gitcheckot -b, 7.Git checkout hash of commit	=What is Full Stack Developer? =What Happens When We Search Any website or url on browser? =What is Dns,vertical scaling, horizontal scaling,Ipconfig command?

In today's Lecture we learnt Parts of Website that Are explained Below

==Parts Of Websites/Architecture Of Website

-Parts/Architecture of website Are Divided in Two Parts

1.Frontend

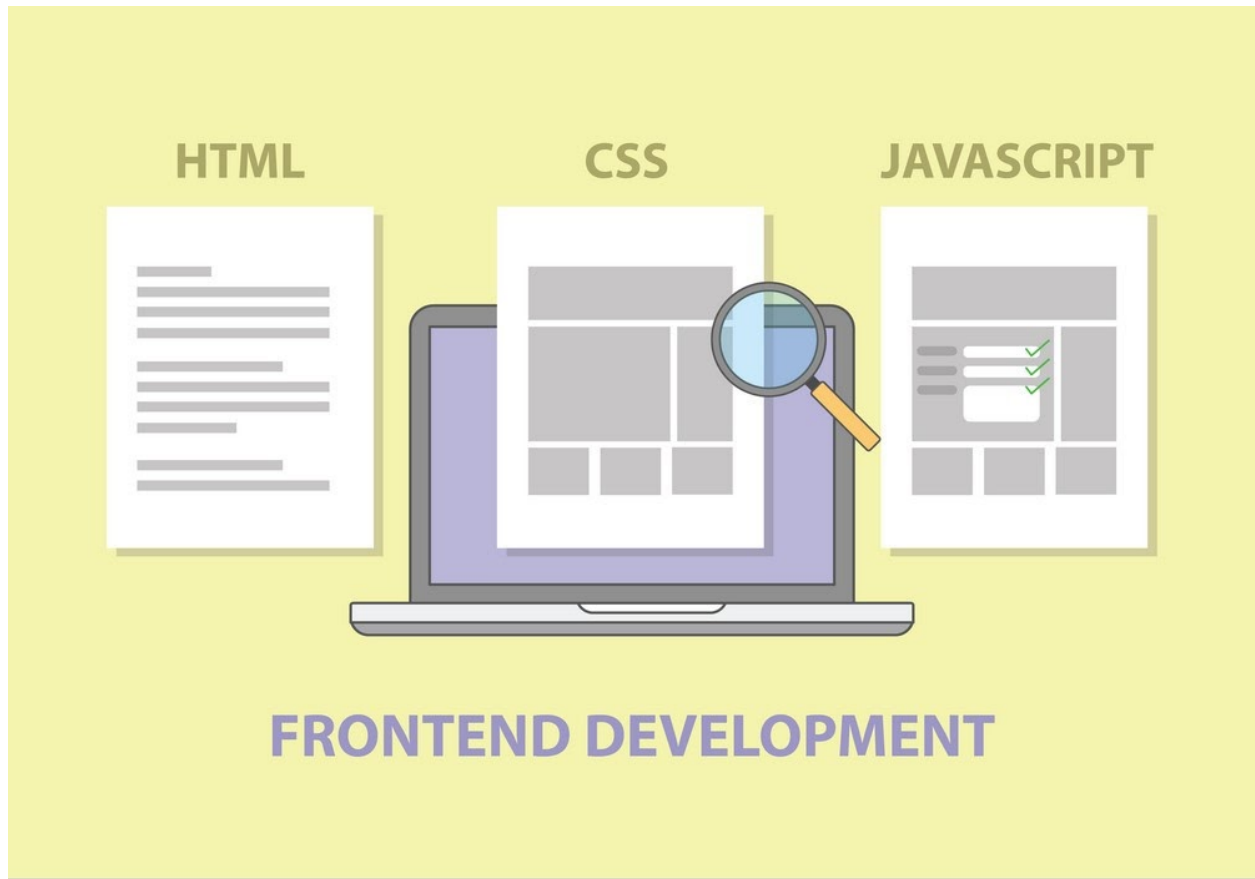
2.Backend

Let's discuss About Both..

==Frontend Parts

-What is Frontend??

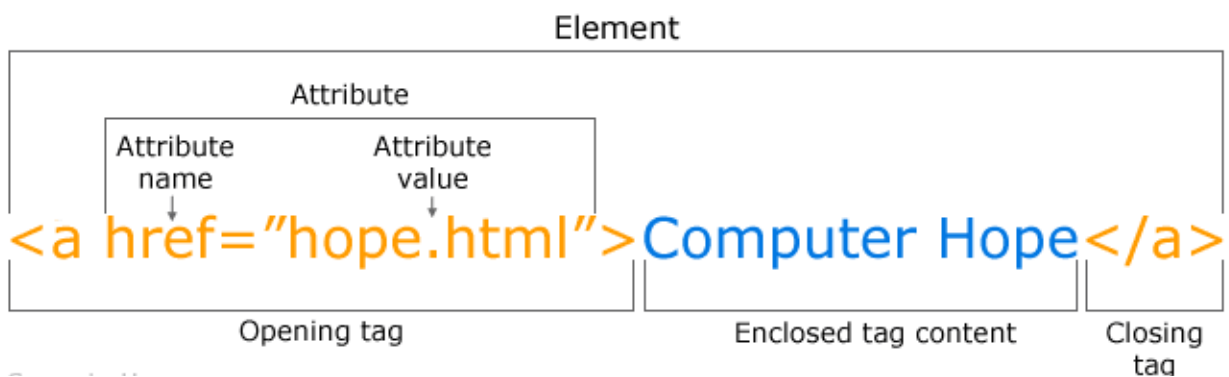
=The front end of a website is the part that **users interact with**. Everything that you see when you're navigating around the Internet, from **fonts and colors to dropdown menus and sliders, is a combo of HTML, CSS, and JavaScript** being controlled by your computer's browser.



1.Html

- HTML is short for **Hypertext Markup Language**. Html is bone of website
- HTML code ensures the **proper formatting** of text and images for your internet Browser.
- Without HTML, a browser would not know how to display text as elements or load images or other elements.

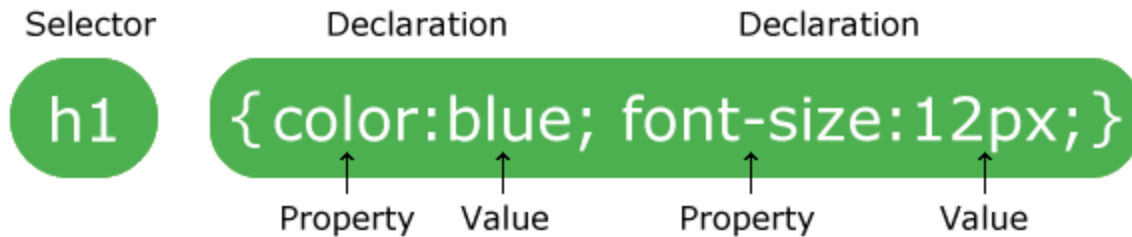
Breakdown of an HTML Tag



To Know More About Html “[Click Here](#)”

2.CSS

- CSS. Stands for “**Cascading Style Sheet**” Ccss is A skin of Website
- Cascading style sheets are used to **format the layout of Web pages**
- Basically it is used to define text styles, table sizes, and other aspects of Web pages



To know more about it “[Click Here](#)”

3.Java script

- JavaScript is a **client scripting language which is used for creating web pages.**
- It is used when a webpage is to be made **dynamic and add special effects on pages** like rollover, roll out and many types of graphics.
- It is known as **brain** of website.

=To know More About Javascript “[Click Here](#)”

=Example Of Javascript is **Given Below..**

```
const tasks = [  
  {  
    id:1,  
    title: 'Task 1',  
    content: 'Hello I\'m Task 1\'s content',  
    done: false,  
    priority:'medium'  
  },  
  {  
    id:2,  
    title: 'Task 2',  
    content:'Hi I\'m all the content from Task 2',  
    done: true,  
    priority:'high'  
  },  
  {  
    id:3,  
    title: 'Task 3',  
    content:'Dastrovia, welcome to Task 3',  
    done: false,  
    priority:'low'  
  }  
]
```

==Backend parts

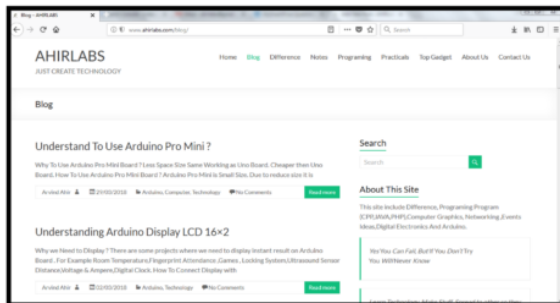
- The back-end is the code that **runs on the server**
- It that receives requests from the clients, and contains the logic to send the appropriate data back to the client.

1.DataBase/Server

-A Web database is a database application designed to be **managed and accessed through the Internet.**

-**Website** operators can manage this collection of data and present analytical results based on the data in the **Web database** application.

To Know More About It “[Click Here](#)”



CLIENT WEB SYSTEM



WEB SERVER

NOTE== These Given Below Parts was just told to us but was not Explained in the Lecture..

2.PYTHON

3.SQL

4.PHP

===What is Full Stack Developer?

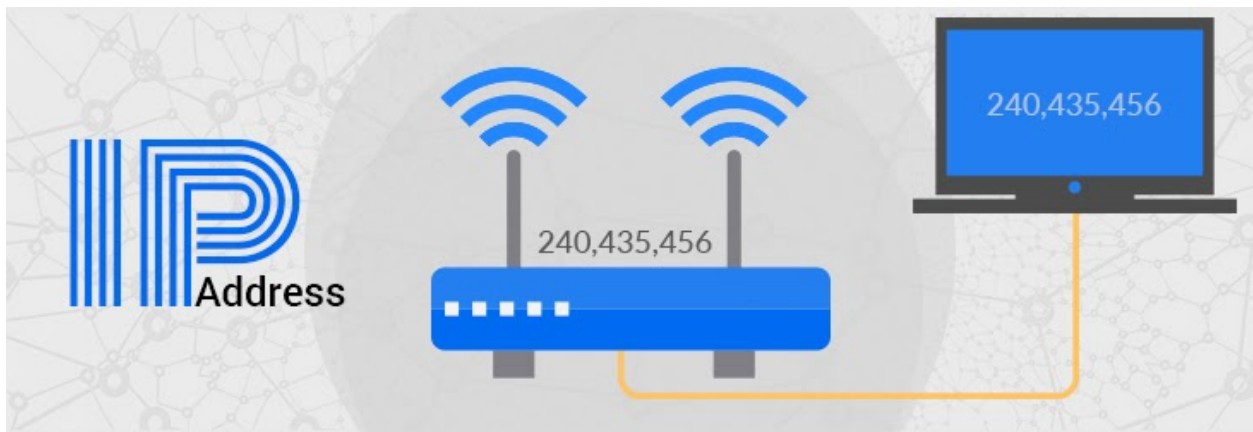
--A full stack developer is a web developer or engineer who works with **both the front and back ends** of a website or application

==What Is Ip Address??

-An **Internet Protocol** (IP) Address is the number assigned to a network equipped piece of hardware by which other device identify it

-It helps in connecting your computer to **other devices on your network and all over the world.**

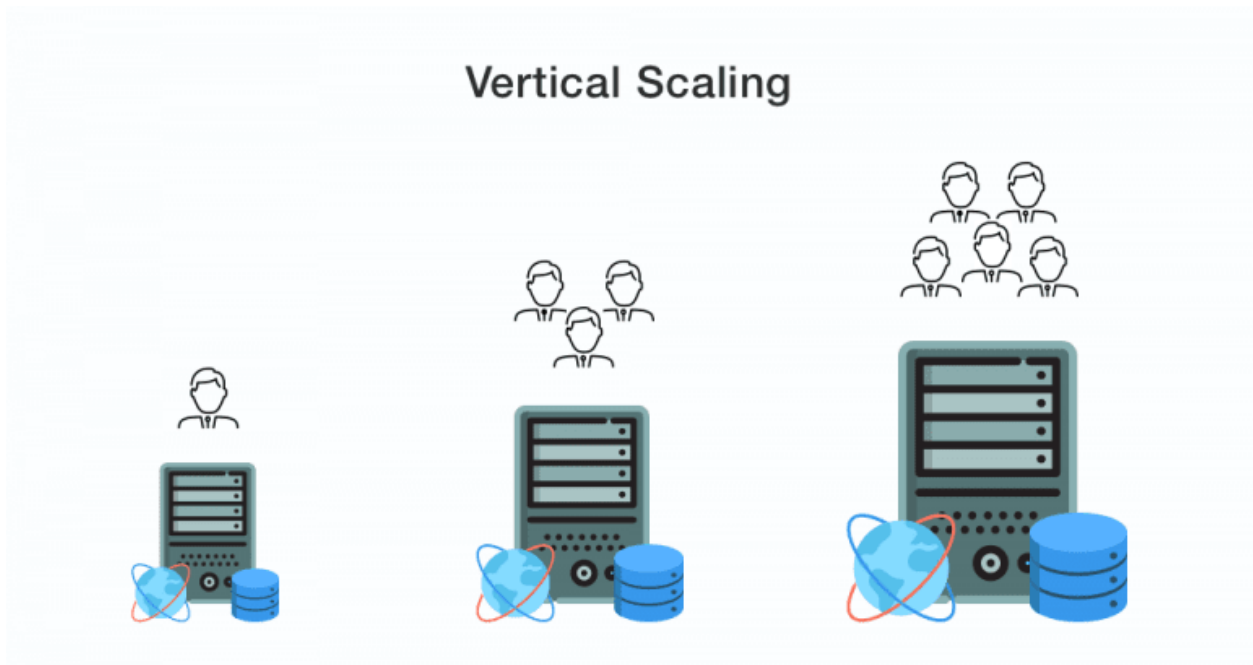
-Ip Address looks like this **192.168.1.1**



[Click Here](#) to Know more About IP Address

==What is **Vertical Scaling??**

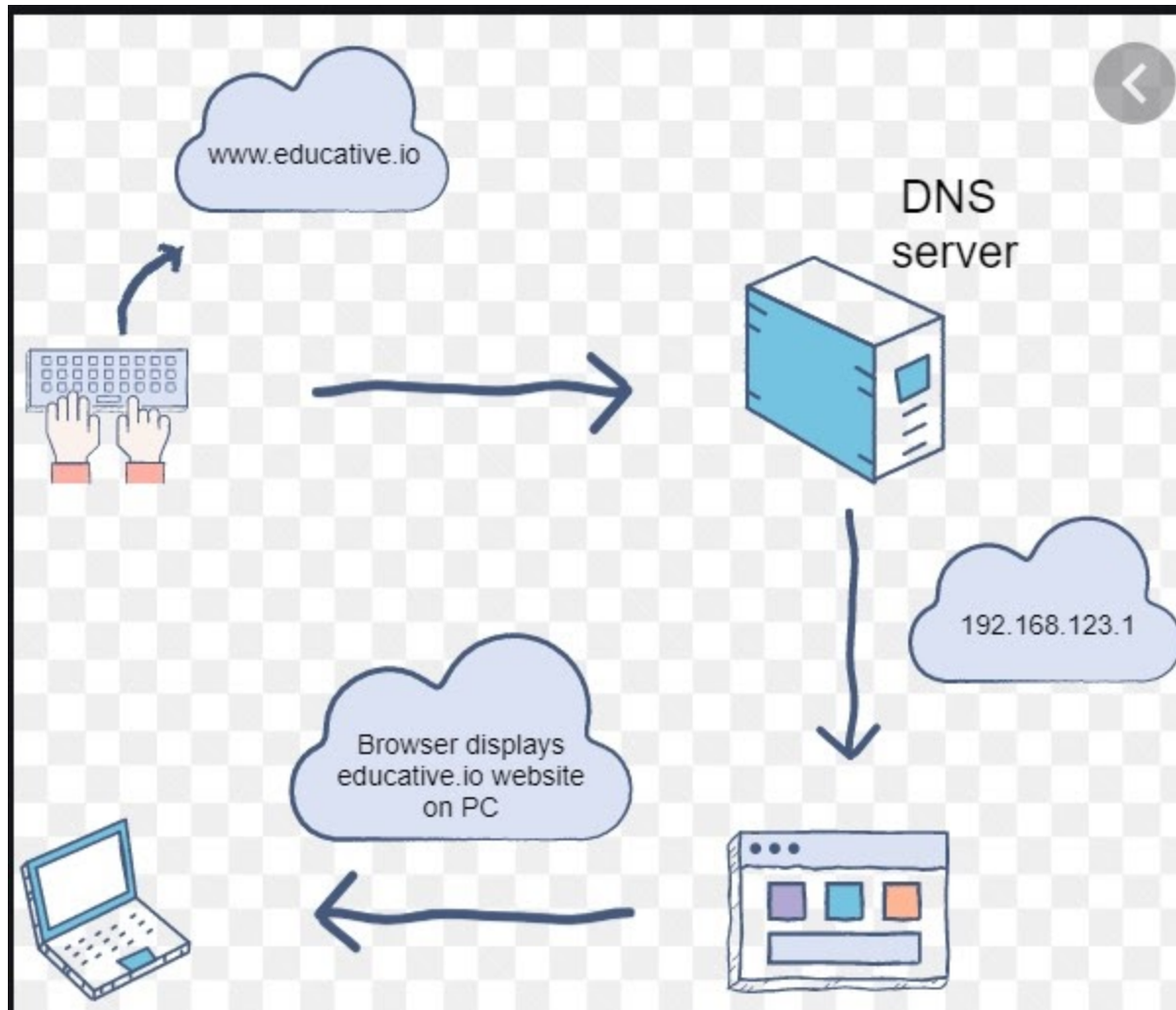
- Vertical scaling can essentially **resize your server with no change to your code.**
- Basically vertical scaling means **upgrade your server configuration.**
- For Example to Upgrade your Storage From **500gb To 2tb**



==What Is dns??

- The **Domain Name System** (DNS) is the phonebook of the Internet.

- Web browsers interact through Internet Protocol (IP) addresses. DNS translates domain names to Ip Address so browsers can load Internet resources.

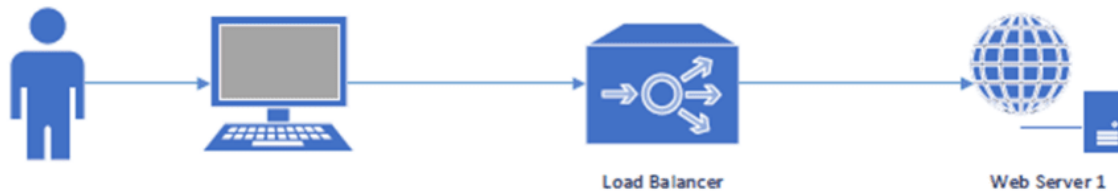


["Click Here"](#) To Know More About Dns

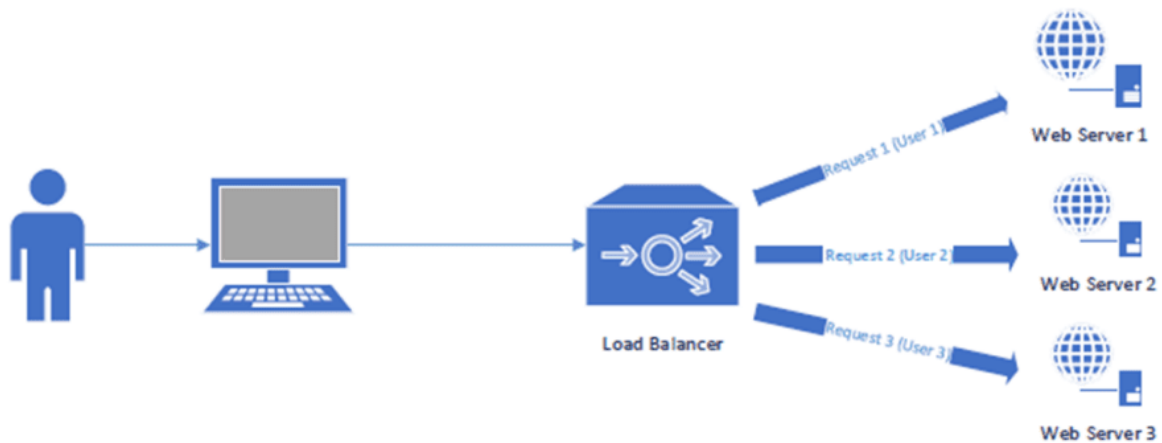
== What is **Horizontal Scalling??**

--Horizontal scaling means that you **scale by adding more machines** into your pool of resources

Non Scalable: Single Server serving all the users. If the server cannot handle large number of users, it will not be able serve the subsequent requests.



Horizontally Scalable: Multiple Servers available to all the users. Depending on the load on each servers, request will be served by allocated server.



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==What Happens When We Search Any website or url on browser???

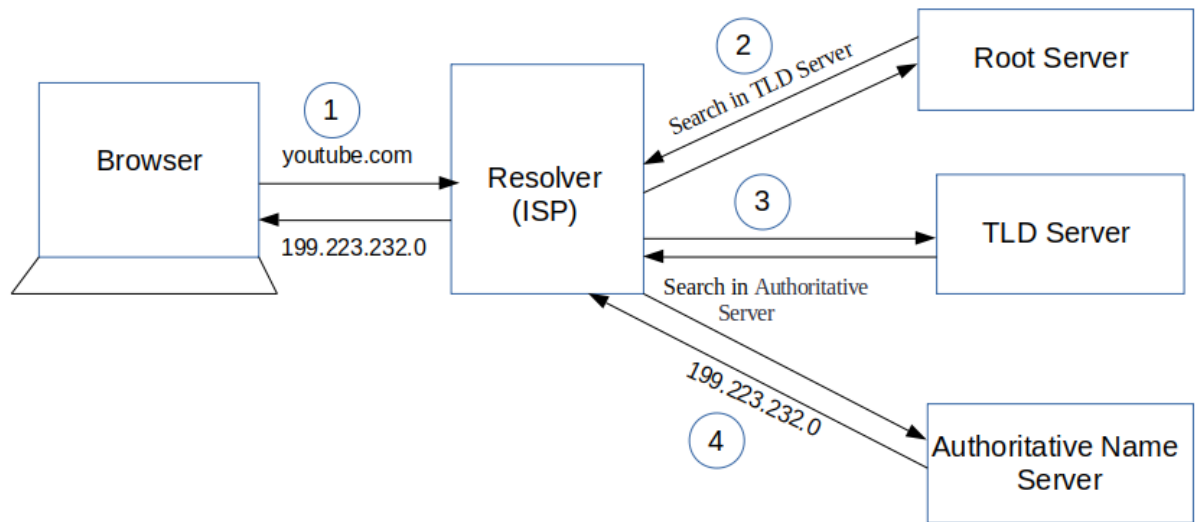
==This Answer is divided in steps which are shown below

STEP=1

1. You type "www.youtube.com" into the address bar of your browser.

STEP=2

2. The browser checks the cache for a DNS record to find the corresponding IP address of www.youtube.com



STEP=3

3. If the requested URL is not in the cache, ISP's DNS server initiates a DNS query to find the IP address of the server that hosts `www.google.com`

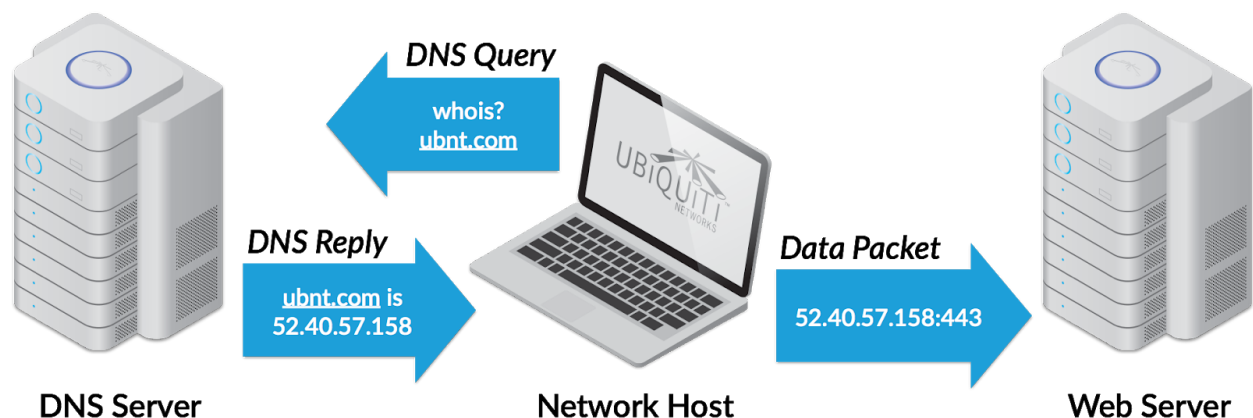
STEP=4

4. The browser initiates a TCP connection with the server.

STEP=5

5. The browser sends an HTTP request to the webserver.

DNS Lookup & Internet Traffic



STEP=6

6. The server handles the request and sends back a response.

STEP=7

7. The server sends out an HTTP response

STEP=8

8. The browser displays the HTML content (for HTML responses, which is the most common).

[Click Here](#) to Know More About It